

-2-

Serial No. 09/972,370  
Docket No. SJO920010098US1  
Firm No. 0037.0082

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Previously Presented) A system in a storage area network (SAN) coupled to at least one storage device, comprising:
  - a processor in communication with the at least one storage device;
  - a plug-and-play manager that generates an event in response to a change in status of at least one of the storage devices;
  - one or more processes executing on the processor, the one or more processes referencing at least a selected one of the storage devices using a previously assigned logical identification; and
  - at least a selected one of the processes responding to the event generated by the plug-and-play manager by querying the storage device for information with respect to which the event was generated, and generating from the queried information a logical identification for that storage device.
2. (Previously Presented) A system in a storage area network (SAN) coupled to at least one storage device, comprising:
  - a processor in communication with the at least one storage device;
  - a plug-and-play manager that generates an event in response to a change in status of at least one of the storage devices and generates a physical identification of the storage device with respect to which the event was generated;
  - one or more processes executing on the processor, the one or more processes referencing at least a selected one of the storage devices using a previously assigned logical identification; and
  - at least a selected one of the processes responding to the event generated by the plug-and-play manager by querying the storage device for information with respect to which the event was generated, wherein the selected process references the physical identification when

-3-

Serial No. 09/972,370  
Docket No. SJO920010098US1  
Firm No. 0037.0082

querying the storage device, and wherein the selected process generates from the queried information a logical identification for that storage device.

3. (Previously Presented) The system of claim 1, wherein the event signifies any of coupling or decoupling of the storage device with respect to which the event was generated for communication with the digital data processor.

4. (Previously Presented) A system in a storage area network (SAN) coupled to at least one storage device, comprising:

- a processor in communication with the at least one storage device;
- a plug-and-play manager that generates an event in response to a change in status of at least one of the storage devices and generates a reference to a data structure containing data regarding the storage device with respect to which the event was generated;
- one or more processes executing on the processor, the one or more processes referencing at least a selected one of the storage devices using a previously assigned logical identification; and
- at least a selected one of the processes responding to the event generated by the plug-and-play manager by querying the storage device for information with respect to which the event was generated, wherein the selected process parses the data contained in the object referenced by the event to determine an address of the storage device, and wherein the selected process generates from the queried information a logical identification for that storage device.

5. (Previously Presented) The system of claim 4, wherein the selected process references the address when querying the storage device.

6. (Previously Presented) The system of claim 5, wherein the processor communicates with the one or more storage devices via a communications port driver, and wherein the selected process queries the port driver to retrieve the information based on the address.

-4-

Serial No. 09/972,370  
Docket No. SJO920010098US1  
Firm No. 0037.0082

7. (Previously Presented) The system of claim 4, wherein the processor communicates with the at least one storage device via a SCSI bus and via an adapter.
8. (Previously Presented) The system of claim 7, wherein the data contained in the object includes a name of the adapter, a port number, a path number, a target number and a logical unit number for the storage device with respect to which the event was generated.
9. (Previously Presented) The system of claim 8, wherein the selected process extracts from the object the port number, the path number, the target number and the LUN number of the storage device with respect to which the event was generated.
10. (Previously Presented) The system of claim 9, wherein the selected process queries the storage device to retrieve SCSI inquiry data.
11. (Previously Presented) The system of claim 8, wherein the selected process opens a handle to the object to obtain the port number, the path number, the target number and the LUN number.
12. (Previously Presented) A storage area network (SAN), comprising:  
at least one storage device, each having a physical address;  
a manager, wherein the manager assigns a logical identifier to each of the storage devices;  
at least one processor in communication with the at least one storage device and the manager executing:  
(i) a plug-n-play manager that generates an event in response to a change in status of at least one of the storage devices, the event referencing the physical address of the storage device having the change in status;  
(ii) an agent in communication with the manager to receive the logical identifiers;

-5-

Serial No. 09/972,370  
Docket No. SJO920010098US1  
Firm No. 0037.0082

(iii) a process that responds to the event generated by the plug-and-play manager to query the storage device having the physical address associated with the event for information regarding the logical identifier of that storage device.

13. (Previously Presented) A storage area network (SAN), comprising:  
at least one storage device, each having a physical address;  
a manager, wherein the manager assigns a logical identifier to each of the storage devices;  
at least one processor in communication with the at least one storage device and the manager executing:

(i) a plug-n-play manager that generates an event in response to a change in status of at least one of the storage devices, the event referencing the physical address of the storage device having the change in status;

(ii) an agent in communication with the manager to receive the logical identifiers;

(iii) a process that responds to the event generated by the plug-and-play manager to query the storage device having the physical address associated with the event for information regarding the logical identifier of that storage device,

wherein the processor includes a communication port for communicating with the storage devices and a port driver providing a software interface to the communication port, wherein the agent communicates the logical identifiers of the storage devices to the port driver.

14. (Original) The SAN of claim 13, wherein the event generated by the plug-n-play manager references an object containing information regarding the physical address of the storage device.

15. (Previously Presented) The SAN of claim 14, wherein the process executing on the at least one processor parses the information contained in the object referenced by the plug-n-play manager to discern the physical address of the storage device.

-6-

Serial No. 09/972,370  
Docket No. SJO920010098US1  
Firm No. 0037.0082

16. (Original) The SAN of claim 15, wherein the process queries the port driver regarding logical identifier of a storage device having the physical address discerned from the object referenced by the plug-n-play manager.

17. (Original) The SAN of claim 16, wherein the port driver utilizes the logical identifiers received from the agent to determine the logical identifier of the storage device having the physical address discerned from the object referenced by the plug-n-play manager.

18. (Canceled)

19. (Canceled)

20. (Currently Amended) A method, comprising:  
generating, by a plug-and-play manager, generates an event in response to a change in status of at least one storage device;  
referencing, by one or more processes executing on a processor in communication with the at least one storage device, one of the storage devices using a previously assigned logical identification; and  
responding, by one of the processes, to the event generated by the plug-and-play manager by querying the storage device for information with respect to which the event was generated and generating from the queried information a logical identification for that storage device.

21. (Previously Presented) A method, comprising:  
generating, by a plug-and-play manager, an event in response to a change in status of at least one storage device and a physical identification of the storage device with respect to which the event was generated;

-7-

Serial No. 09/972,370  
Docket No. SJO920010098US1  
Firm No. 0037.0082

referencing, by one or more processes executing on a processor in communication with the at least one storage device, one of the storage devices using a previously assigned logical identification; and

responding, by a selected one of the processes, to the event generated by the plug-and-play manager by querying the storage device for information with respect to which the event was generated, wherein the selected process references the physical identification when querying the storage device and wherein the selected process generates from the queried information a logical identification for that storage device.

22. (Previously Presented) The method of claim 21, wherein the event signifies any of coupling or decoupling of the storage device with respect to which the event was generated for communication with the digital data processor.

23. (Previously Presented) A method, comprising:

generating, by a plug-and-play manager, an event in response to a change in status of at least one storage device and a reference to a data structure containing data regarding the storage device with respect to which the event was generated;

referencing, by one or more processes executing on a processor in communication with the at least one storage device, one of the storage devices using a previously assigned logical identification; and

responding, by a selected one of the processes, to the event generated by the plug-and-play manager by querying the storage device for information with respect to which the event was generated, wherein the selected process parses the data contained in the object referenced by the event to determine an address of the storage device, and wherein the selected process generates from the queried information a logical identification for that storage device.

24. (Previously Presented) The method of claim 23, wherein the selected process references the address when querying the storage device.

-8-

Serial No. 09/972,370  
Docket No. SJO920010098US1  
Firm No. 0037.0082

25. (Previously Presented) The method of claim 24, wherein the processor communicates with the one or more storage devices via a communications port driver, and wherein the selected process queries the port driver to retrieve the information based on the address.
26. (Previously Presented) The method of claim 23, wherein the processor communicates with the at least one storage device via a SCSI bus and via an adapter.
27. (Previously Presented) The method of claim 26, wherein the data contained in the object includes a name of the adapter, a port number, a path number, a target number and a logical unit number for the storage device with respect to which the event was generated.
28. (Previously Presented) The method of claim 27, wherein the selected process extracts from the object the port number, the path number, the target number and the LUN number of the storage device with respect to which the event was generated.
29. (Previously Presented) The method of claim 28, wherein the selected process queries the storage device to retrieve SCSI inquiry data.
30. (Previously Presented) The method of claim 27, wherein the selected process opens a handle to the object to obtain the port number, the path number, the target number and the LUN number.
31. (Previously Presented) A computer readable medium including code implementing a plug-and-play manager and processes executed by a processor in communication with at least one storage device to perform operations comprising:  
generating, by the plug-and-play manager, an event in response to a change in status of at least one storage device;

-9-

Serial No. 09/972,370  
Docket No. SJO920010098US1  
Firm No. 0037.0082

referencing, by at least one of the processes, one of the storage devices using a previously assigned logical identification; and

responding, by one of the processes, to the event generated by the plug-and-play manager by querying the storage device for information with respect to which the event was generated and generating from the queried information a logical identification for that storage device.

32. (Previously Presented) A computer readable medium including code implementing a plug-and-play manager and processes executed by a processor in communication with at least one storage device to perform operations comprising:

generating, by the plug-and-play manager, an event in response to a change in status of at least one storage device and a physical identification of the storage device with respect to which the event was generated;

referencing, by at least one of the processes, one of the storage devices using a previously assigned logical identification; and

responding, by a selected one of the processes, to the event generated by the plug-and-play manager by querying the storage device for information with respect to which the event was generated, wherein the selected process references the physical identification when querying the storage device and wherein the selected process generates from the queried information a logical identification for that storage device.

33. (Previously Presented) The computer readable medium of claim 32, wherein the event signifies any of coupling or decoupling of the storage device with respect to which the event was generated for communication with the digital data processor.

34. (Previously Presented) A computer readable medium including code implementing a plug-and-play manager and processes executed by a processor in communication with at least one storage device to perform operations comprising:



-10-

Serial No. 09/972,370  
Docket No. SJO920010098US1  
Firm No. 0037.0082

generating, by the plug-and-play manager, an event in response to a change in status of at least one storage device and a reference to a data structure containing data regarding the storage device with respect to which the event was generated;

referencing, by at least one of the processes, one of the storage devices using a previously assigned logical identification; and

responding, by a selected one of the processes, to the event generated by the plug-and-play manager by querying the storage device for information with respect to which the event was generated, wherein the selected process parses the data contained in the object referenced by the event to determine an address of the storage device, and wherein the selected process generates from the queried information a logical identification for that storage device.

35. (Previously Presented) The computer readable medium of claim 34, wherein the selected process references the address when querying the storage device.

36. (Previously Presented) The computer readable medium of claim 35, wherein the processor communicates with the one or more storage devices via a communications port driver, and wherein the selected process queries the port driver to retrieve the information based on the address.

37. (Previously Presented) The computer readable medium of claim 34, wherein the processor communicates with the at least one storage device via a SCSI bus and via an adapter.

38. (Previously Presented) The computer readable medium of claim 37, wherein the data contained in the object includes a name of the adapter, a port number, a path number, a target number and a logical unit number for the storage device with respect to which the event was generated.

-11-

Serial No. 09/972,370  
Docket No. SJO920010098US1  
Firm No. 0037.0082

39. (Previously Presented) The computer readable medium of claim 38, wherein the selected process extracts from the object the port number, the path number, the target number and the LUN number of the storage device with respect to which the event was generated.

40. (Previously Presented) The computer readable medium of claim 39, wherein the selected process queries the storage device to retrieve SCSI inquiry data.

41. (Previously Presented) The computer readable medium of claim 38, wherein the selected process opens a handle to the object to obtain the port number, the path number, the target number and the LUN number.